Status of ISS simulations

ECAL-E calorimeter geometries:

- Distance between two consecutive layers: **15 mm**

- Si sensors dimensions: **18 cm x 18 cm x 0.05 cm**

1st geometry - MC simulations related with the TB2022 at DESY			
Layer	Si sensor [μm]	W plate [mm]	Obs
1	500	2.8	
2	500	2.8	
3	500	2.8	
4	500	2.8	
5	500	2.8	
6	500	2.8	
7	500	2.8	
8	500	4.2	
9	500	4.2	
10	500	4.2	
11	500	4.2	
12	500	4.2	
13	500	4.2	
14	500	4.2	
15	500	4.2	
2nd geometry - MC simulations related with the TB2022 at CERN			
Layer	Si sensor [μm]	W plate [mm]	Obs
1	500	4.2	
2	500	4.2	
3	500	4.2	
4	500	4.2	
5	500	4.2	
6	500	4.2	
7	500	4.2	
8	500	4.2	
9	500	5.6	
10	500	5.6	
11	500	5.6	
12	500	5.6	
13	500	5.6	
14	500	5.6	
15	500	5.6	

Done:

Using a standalone application in Geant4 Mihai implemented the geometry setup of the Calice experiment from TB2022 which took place at DESY. More details can be found in Mihai's presentation uploaded to the ECAL working group meeting (https://indico.desy.de/event/34664) - https://indico.desy.de/event/34664/contributions/122951/attachments/74811/95903/6.12-mai-2022-potlog.pdf

To be done:

Using the same standalone G4 application to redo the geometry setup takes into account the new tungsten thickness. As we discussed at the ECAL meeting the first 8 layers are 4.2 mm thick and the next 7 layers are 5.6 mm thick.